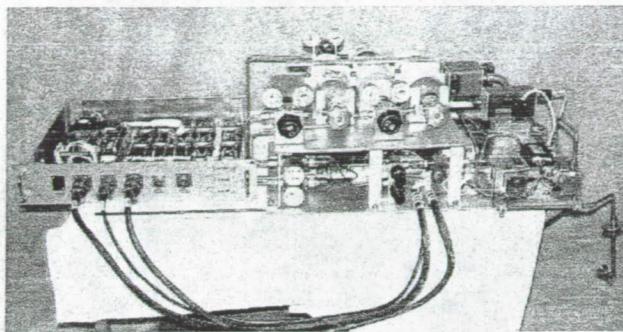


# Aircraft-based Volcanic Emissions Mass Spectrometer (AVEMS)

C. R. Arkin, G. R. Naylor, C. H. Curley, D. P. Floyd and W. D. Haskell - ASRC Aerospace, ASRC-14  
T. P. Griffin, F. W. Adams, and D. W. Follistein - NASA, YA-D2-E2,  
Kennedy Space Center, FL 32899

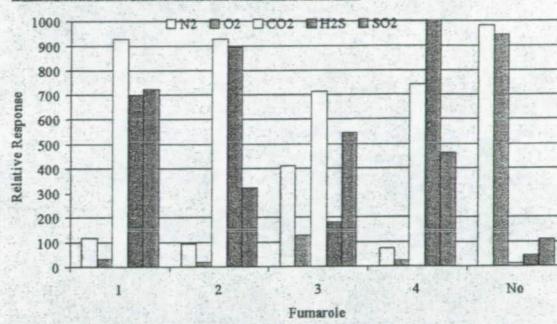
- Quantitative
- Accurate
- Rapid Analysis
- Lightweight
- Power Efficient
- Rugged



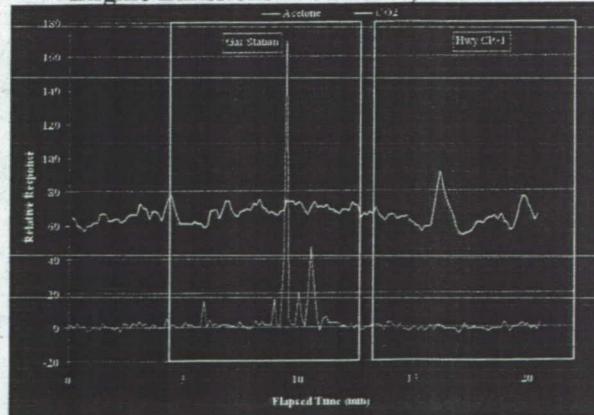
- Linear Quadrupole
- 90,000 cm<sup>3</sup>
- 47 kg (105 lb)
- 350 W (steady state)
- Rugged (25 to -60°C; 760 - 50 torr)
- 6 s Scan Time
- 30 s Response Time
- Autonomous
- 20 ppm LOQ



AVEMS hand transported to Turrialba Volcano for in-situ gas analysis



Engine Emissions in San Jose, Costa Rica



AVEMS Flown over Volcanoes in Costa Rica

